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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,447	08/27/2003	Volker Braun	Q77098	4594

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WASHINGTON, DC 20037

EXAMINER
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WONG, XAVIER S

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/648,447

**Applicant(s)**

BRAUN ET AL.

**Examiner**

Xavier Wong.

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2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27<sup>th</sup> Aug 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27<sup>th</sup> Aug 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12<sup>th</sup> Dec 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in **Europe** on 27<sup>th</sup> September 2002. It is noted, however, that applicant has not filed a certified copy of the **EP 02 360 276.6** application as required by 35 U.S.C. 119(b).

### *Information Disclosure Statement*

The information disclosure statement submitted on 12<sup>th</sup> December 2003 has been considered by the Examiner and made of record in the application file.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 5 – 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by **Hedberg et al** ("*Evolving WCDMA*").

Consider claims **1**, **5**, **6** and **10**, **Hedberg et al** show and disclose a method, sender, computer program product (pg. 130 right-col. lines 7-12 remote software loading) and mobile communications system (abstract; pg. 124 right-col. lines 1-14 wherein UMTS, IMT-2000, etc. are mobile systems) to transmit/send downlink data over two antennas – therefore, at least two signals (pg. 126 left-col. lines 36-41). Sets of *Node Bs* along with multiple components in the UTRAN architecture in figure 1 by means of Downlink Shared Channel (DSCH) scheme allow every User Equipment (UE) for carrier frequencies to have an associated dedicated physical channel (DPCH) (abstract; pg. 129 left-col. lines 56-58 & right-col. lines 1; pg. 130 right-col. lines 23-26; fig. 1); multiple UEs in code-multiplex high-speed DSCH (HS-DSCH) (pg. 129 left-col. lines 42-47); transmitting a frequency signal involves a space-time transmit diversity (STTD) scheme (pg. 126 left-col. lines 7-40) and code-multiplex HS-DSCH which exploits multi-user diversity (pg. 128 right-col. lines 8-12 & pg. 129 left-col. lines 42-47).

Consider claim **2**, and as applied to claim **1**, **Hedberg et al** shows and disclose the channels are HS-DSCH channels and code-multiplexed shared of a HSDPA transmission system (pg. 129 left-col. lines 16-56).

Consider claims **3** and **8**, and as applied to claims **1** and **6**, **Hedberg et al** show and disclose a multi-carrier power amplifier coupled to two antennas for two (carrier) frequencies in a radio base station to send signals (pg. 130 left-col. lines 14-28 & right-col. lines 1-21; fig. 4).

Consider claim **7**, and as applied to claim **6**, **Hedberg et al** show and disclose the High-Speed Downlink Packet Access (HSDPA) applies fast scheduling of users sharing the

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HS-DSCH (code-multiplexed channels) which exploits multi-user diversity to transmit users with favorable radio connections; in other words, a scheduler would enable the use of a spectral-efficient higher-order modulation (only) when channel conditions are experience a fading dip (pg. 128 left-col. lines 24-31 & right-col. lines 1-16; pg. 129 left col. lines 17-52; pg. 130 left-col. lines 2-4).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hedberg et al** ("*Evolving WCDMA*") in view of **Kogiantis et al** (EP 1,211,820 A1).

Consider claims 4 and 9, and as applied to claims 1 and 6, **Hedberg et al** show the claimed invention except for explicitly mentioning a number of N carrier frequencies.

In the same field of endeavor, **Kogiantis et al** disclose N antennas to be scheduled most appropriately (for the most appropriate carrier frequencies) for (N) different subscribers (paragraphs 0014, 0016-17 wherein C/I ratio indicates a carrier frequency to interference ratio & 0019; claim 1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the teachings of comprising N carrier frequencies as taught by **Kogiantis et al**, in the method and apparatus of **Hedberg et al**, in order to allow the conveyance of information over a communication channel to a particular corresponding subscriber based on channel conditions.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xavier Wong whose telephone number is 571-270-1780. The examiner can normally be reached on Monday through Friday 8 am - 5 pm (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Xavier Szewai Wong*

*X.S.W / x.s.w*

16<sup>th</sup> April 2007

A handwritten signature in black ink, appearing to be 'X.S.W' with a stylized flourish at the end.